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FILE LAST UPDATED: 30 Jan 2002  (20020130/ED)

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The P indicator for Preparations was not generated for all of the
CAS Registry Numbers that were added to the CAS files between 12/27/01
and 1/23/02.  As of 1/23/02, the situation has been resolved.  Searches
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Numbers with the P indicator executed between 12/27/01 and 1/23/02 may
be incomplete.  See the NEWS message on this topic for more information.

=> d stat que
L1           53 SEA FILE=REGISTRY SERUM ALBUMIN?/CN
L3          330 SEA FILE=REGISTRY CHIMERIC
L4           63 SEA FILE=REGISTRY ANGIOSTA?/CN
L5           42 SEA FILE=REGISTRY ENDOSTATIN?
L7          342 SEA FILE=REGISTRY CYSTINE?/CN
L13       61673 SEA FILE=HCAPLUS L1 OR SERUM(W)ALBUMIN OR SA
L14       12190 SEA FILE=HCAPLUS CHIMERIC(5A)(PROTEIN? OR  ?PEPTIDE?) OR L3
L15         590 SEA FILE=HCAPLUS L4 OR ANGIOSTA?
L16         346 SEA FILE=HCAPLUS L5 OR ENDOSTAT?
L17       85458 SEA FILE=HCAPLUS L7 OR CYSTEINE
L19        2449 SEA FILE=HCAPLUS HETEROLOGOUS(W)(PROTEIN? OR ?PEPTIDE?)
L20        1198 SEA FILE=HCAPLUS L13 AND (L15 OR L16 OR L17 OR L19)
L21           9 SEA FILE=HCAPLUS L20 AND L14


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L21 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:936090 HCAPLUS
DOCUMENT NUMBER: 136:58776
TITLE: **Chimeric polypeptides** of **serum albumin** and uses related thereto
INVENTOR(S): Gyuris, Jeno; Lamphere, Lou
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 34 pp., Cont.-in-part of U.S. Ser. No. 619,285.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001056075	A1	20011227	US 2001-764918	20010118
PRIORITY APPLN. INFO.:			US 1999-144534 P	19990719
			US 2000-619285 A2	20000719

AB The present invention relates to **chimeric polypeptides** in which a **serum albumin** protein has been altered to include one or more biol. active **heterologous peptide** sequences. The **chimeric polypeptides** may exhibit therapeutic activity related to the **heterologous peptide** sequences coupled with the improved serum half-lives derived from the **serum albumin** protein fragments. **Heterologous peptide** sequences may be chosen to promote any biol. effect, including angiogenesis inhibition, antitumor activity, and induction of apoptosis. The therapeutic effect may be achieved by direct administration of the **chimeric polypeptide**, or by transfecting cells with a vector including a nucleic acid encoding such a **chimeric polypeptide**.

IT **86090-08-6P, Angiostatin 187888-07-9P, Endostatin**
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(fusion **proteins; chimeric polypeptides** of **serum albumin** and uses related thereto)

L21 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:781079 HCAPLUS
DOCUMENT NUMBER: 135:348851
TITLE: Albumin fusion proteins with therapeutic proteins for improved shelf-life
INVENTOR(S): Rosen, Craig A.; Haseltine, William A.
PATENT ASSIGNEE(S): Human Genome Sciences, Inc, USA
SOURCE: PCT Int. Appl., 606 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

sequences. The **chimeric polypeptides** may exhibit therapeutic activity related to the **heterologous peptide** sequences coupled with the improved serum half-lives derived from the **serum albumin** protein fragments. **Heterologous peptide** sequences may be chosen to promote any biol. effect, including angiogenesis inhibition, antitumor activity, and induction of apoptosis. The therapeutic effect may be achieved by direct administration of the **chimeric polypeptide**, or by transfecting cells with a vector including a nucleic acid encoding such a **chimeric polypeptide**.

IT **86090-08-6P, Angiostatin 187888-07-9P, Endostatin**
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(fusion **proteins; chimeric polypeptides** of **serum albumin** and uses related thereto)

L21 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:781079 HCAPLUS
DOCUMENT NUMBER: 135:348851
TITLE: Albumin fusion proteins with therapeutic proteins for improved shelf-life
INVENTOR(S): Rosen, Craig A.; Haseltine, William A.
PATENT ASSIGNEE(S): Human Genome Sciences, Inc, USA
SOURCE: PCT Int. Appl., 606 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001079444	A2	20011025	WO 2001-US12013	20010412

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-229358 P 20000412
US 2000-199384 P 20000425
US 2000-256931 P 20001221

AB The present invention encompasses fusion proteins of albumin with various therapeutic proteins. Therapeutic proteins may be stabilized to extend the shelf-life, and/or to retain the therapeutic protein's activity for extended periods of time in soln., in vitro and/or in vivo, by genetically or chem. fusing or conjugating the therapeutic protein to albumin or a fragment or variant of albumin. Use of albumin fusion proteins may also reduce the need to formulate the protein solns. with large excesses of carrier proteins to prevent loss of therapeutic proteins due to factors

such as binding to the container. Nucleic acid mols. encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors contg. these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Thus, plasmid vectors are constructed in which DNA encoding the desired therapeutic protein may be inserted for expression of the albumin fusion proteins in yeast (pPPC0005) and mammalian cells (pC4:HSA). Yeast-derived signal sequences from Saccharomyces cerevisiae invertase SUC2 gene, or the stanniocalcin or native human **serum albumin** signal peptides, are used for secretion in yeast or mammalian systems, resp. Thus, the fusion product of human growth hormone with residues 1-387 of human **serum albumin** retains essentially intact biol. activity after 5 wk of incubation in tissue culture media at 37.degree., whereas recombinant human growth hormone used as control lost its biol. activity in the first week. Although the potency of the albumin fusion proteins is slightly lower than the unfused counterparts in rapid bioassays, their biol. stability results in much higher biol. activity in the longer term in vitro assay or in vivo assays. Addnl., the present invention encompasses pharmaceutical compns. comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

IT **187888-07-9P, Endostatin**
RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(albumin fusion proteins with therapeutic proteins for improved shelf-life)

L21 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:781078 HCAPLUS
DOCUMENT NUMBER: 135:348850
TITLE: Albumin fusion proteins with therapeutic proteins for improved shelf-life
INVENTOR(S): Rosen, Craig A.; Haseltine, William A.
PATENT ASSIGNEE(S): Human Genome Sciences, Inc., USA
SOURCE: PCT Int. Appl., 374 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001079443	A2	20011025	WO 2001-US11924	20010412

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,

BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: US 2000-229358 P 20000412
US 2000-199384 P 20000425
US 2000-256931 P 20001221

AB The present invention encompasses fusion proteins of albumin with various therapeutic proteins. Therapeutic proteins may be stabilized to extend the shelf-life, and/or to retain the therapeutic protein's activity for extended periods of time in soln., in vitro and/or in vivo, by genetically or chem. fusing or conjugating the therapeutic protein to albumin or a fragment or variant of albumin. Use of albumin fusion proteins may also reduce the need to formulate the protein solns. with large excesses of carrier proteins to prevent loss of therapeutic proteins due to factors such as binding to the container. Nucleic acid mols. encoding the albumin fusion proteins of the invention are also encompassed by the invention, as are vectors contg. these nucleic acids, host cells transformed with these nucleic acids vectors, and methods of making the albumin fusion proteins of the invention and using these nucleic acids, vectors, and/or host cells. Thus, plasmid vectors are constructed in which DNA encoding the desired therapeutic protein may be inserted for expression of the albumin fusion proteins in yeast (pPPC0005) and mammalian cells (pC4:HSA). Yeast-derived signal sequences from Saccharomyces cerevisiae invertase SUC2 gene, or the stanniocalcin or native human **serum albumin** signal peptides, are used for secretion in yeast or mammalian systems, resp. Thus, the fusion product of human growth hormone with residues 1-387 of human **serum albumin** retains essentially intact biol. activity after 5 wk of incubation in tissue culture media at 37.degree., whereas recombinant human growth hormone used as control lost its biol. activity in the first week. Although the potency of the albumin fusion proteins is slightly lower than the unfused counterparts in rapid bioassays, their biol. stability results in much higher biol. activity in the longer term in vitro assay or in vivo assays. Addnl., the present invention encompasses pharmaceutical compns. comprising albumin fusion proteins and methods of treating, preventing, or ameliorating diseases, disorders or conditions using albumin fusion proteins of the invention.

IT **86090-08-6P, Angiostatin**
RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(albumin fusion proteins with therapeutic proteins for improved shelf-life)

L21 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:64027 HCAPLUS
DOCUMENT NUMBER: 134:110478
TITLE: **Chimeric polypeptides** of **serum albumin** containing **heterologous peptide** sequences, and therapeutic uses thereof
INVENTOR(S): Gyuris, Jeno; Lamphere, Lou
PATENT ASSIGNEE(S): GPC Biotech Inc., USA
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001005826	A2	20010125	WO 2000-US19689	20000719
WO 2001005826	A3	20010802		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-144534 P 19990719

AB The invention discloses **chimeric polypeptides** in which a **serum albumin** protein has been altered to include one or more biol. active **heterologous peptide** sequences. The **chimeric polypeptides** may exhibit therapeutic activity related to the **heterologous peptide** sequences coupled with the improved serum half-lives derived from the **serum albumin** protein fragments. **Heterologous peptide** sequences may be chosen to promote any biol. effect, including angiogenesis inhibition, antitumor activity, and induction of apoptosis. The therapeutic effect may be achieved by direct administration of the **chimeric polypeptide**, or by transfecting cells with a vector including a nucleic acid encoding such a **chimeric polypeptide**.

IT **86090-08-6D, Angiostatin**, fragments **187888-07-9D, Endostatin**, fragments
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(**chimeric polypeptides** of **serum albumin** contg. **heterologous peptide** sequences, and therapeutic uses thereof)

L21 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:175372 HCAPLUS
DOCUMENT NUMBER: 128:229741
TITLE: Methods of enhancing production performance of birds comprising administration of **heterologous protein** comprising avian .alpha.-subunit inhibin protein
INVENTOR(S): Fioretti, William C.; Kousoulas, Konstantin; Satterlee, Daniel G.
PATENT ASSIGNEE(S): Agritech Technologies, Ltd., USA; Board of Supervisors of Louisiana State Univ. and Agricultural & Mechanical College
SOURCE: U.S., 29 pp. Cont.-in-part of U.S. Ser. No. 395,554, abandoned.
CODEN: USXXAM

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5725858	A	19980310	US 1995-481633	19950607
US 5747659	A	19980505	US 1995-480493	19950607
CA 2222947	AA	19961219	CA 1996-2222947	19960606
WO 9640219	A1	19961219	WO 1996-US9229	19960606
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
AU 9660941	A1	19961230	AU 1996-60941	19960606
AU 726321	B2	20001102		
EP 833658	A1	19980408	EP 1996-918234	19960606
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
CN 1192692	A	19980909	CN 1996-195839	19960606
JP 11511964	T2	19991019	JP 1996-501604	19960606

PRIORITY APPLN. INFO.:
US 1994-202964 B2 19940228
US 1995-395554 B2 19950228
US 1995-481633 A3 19950607
WO 1996-US9229 W 19960606

AB The prodn. performance of avians is enhanced by administering a heterologous fusion protein comprised of inhibin, or a fragment thereof, and a carrier protein. A DNA fragment (cINA521) was excised from the chicken inhibit .alpha.-subunit cDNA clone cINA6 using PstI digestion and cloned in the com. plasmid vector pMAL-c in .frame with the maltose-binding protein (MBP) and a fusion protein of appropriate size was detected after IPTG induction and SDS-PAGE. The resulting protein conjugate (MBP-cINA521) was used as an antigen to immunize pre-pubescent, female Japanese quail (Coturnix coturnix japonica) against circulating inhibin levels. MBP-cINA521 immunization enhances prodn. performance as it accelerates the onset of puberty, increases egg lay intensity, and accelerates the onset of max. egg lay in Japanese quail. Improved prodn. performance is also obsd. in ostrich, emu, chicken, turkey, and parrots.

L21 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:679116 HCAPLUS
DOCUMENT NUMBER: 127:330381
TITLE: Modified/chimeric superantigens and their use
INVENTOR(S): Antonsson, Per; Hansson, Johan; Bjork, Per; Dohlsten, Mikael; Kalland, Terje; Abrahmsen, Lars; Forsberg, Goran
PATENT ASSIGNEE(S): Pharmacia & Upjohn AB, Swed.; Antonsson, Per; Hansson, Johan; Bjork, Per; Dohlsten, Mikael; Kalland, Terje; Abrahmsen, Lars; Forsberg, Goran
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9736932	A1	19971009	WO 1997-SE537	19970326
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2222757	AA	19971009	CA 1997-2222757	19970326
AU 9725251	A1	19971022	AU 1997-25251	19970326
AU 707827	B2	19990722		
EP 835266	A1	19980415	EP 1997-916693	19970326
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1194651	A	19980930	CN 1997-190630	19970326
BR 9702179	A	19990316	BR 1997-2179	19970326
JP 2002502363	T2	20020122	JP 1997-535198	19970326
NO 9705435	A	19980129	NO 1997-5435	19971126

PRIORITY APPLN. INFO.:		
SE 1996-1245	A	19960329
US 1996-695692	A	19960812
WO 1997-SE537	W	19970326

AB A conjugate between a target-seeking moiety and a modified superantigen, characterized in that the superantigen is a wild-type superantigen (**SA** I) in which an amino acid residue in a superantigen region (region I) detg. binding to TCR, preferably TCR V.beta., and T cell activation have been replaced by another amino acid residue while retaining the ability to activate a subset of T cells. In a preferred embodiment the modified superantigen is a chimer between at least two wild-type superantigens (**SA** I, **SA** II etc.) characterized in that one or more amino acid residues in a region detg. binding to TCR and T cell activation have been interchanged between various wild-type superantigens. A therapeutic method making use of modified/chimeric superantigens as defined in the preceding paragraphs. An antibody prepn. in which the **cysteine** residues that provide for interchain disulfide bonds have been mutated so as to forbid interchain disulfide bridges, preferably to serine residues, for use as a pharmaceutical. Plasmid 5T4Fab-SEA encoding fusion protein contg. antibody 5T4 variable region and murine IgG1 V.kappa. chain and Staphylococcal enterotoxin A was constructed, and the expressed chimeric superantigen was tested.

L21 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:617214 HCAPLUS
DOCUMENT NUMBER: 126:3980
TITLE: Anomalous mobility of sulfitolyzed proteins in SDS-PAGE. Analysis and applications

AUTHOR(S): Malhotra, M.; Sahal, D.
CORPORATE SOURCE: International Centre Genetic Eng. Biotechnology, Aruna Asaf Ali Marg, Recombinant Gene Products, New Delhi, India
SOURCE: Int. J. Pept. Protein Res. (1996), 48(3), 240-248
CODEN: IJPPC3; ISSN: 0367-8377
PUBLISHER: Munksgaard
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Some **cysteine**-contg. proteins upon sulfitolysis have been found to show anomalously retarded SDS-PAGE mobilities in non-reducing gels. These proteins include bovine **serum albumin**, ovalbumin, aldolase, RNase and a recombinant fusion protein (XA) consisting of a portion of .gamma.-interferon linked to the A chain of human insulin. This mobility shift has been employed to det. the stability of the sulfonated products and to study the kinetics of the sulfitolysis reaction. Partially sulfonated products of intermediate shifts were obsd. at 0.01% .beta.-mercaptoethanol (.beta.-ME), while 0.05% .beta.-ME gave a shift characteristic of the completely reduced protein. The undiluted sulfitolysis reagent reacted with XA to give within 1 min a gel shift characteristic of the fully sulfitolyzed protein. Its transition stages could be visualized at 15, 30 and 60 min when the reagent was dild. four-fold. In the presence of 8 M urea, the sulfitolysis of BSA was nearly complete at 30 min when the sulfitolysis reagent was used at a diln. of 1:5. However, under the same conditions BSA was predominantly unsulfitolyzed in the absence of urea. In order to elucidate the mechanism of sulfonation shift, several derivs. of XA, e.g. performic acid oxidized, alkylated with (a) iodoacetamide and (b) iodoacetate, have been prepd. While the mobility of XASSO3- was sensitive to the presence of .beta.-ME, all other derivs. moved in a .beta.-ME-insensitive fashion. Furthermore, while the nonreducing mobilities of the acidic derivs. (-SSO3-, -SO3- and -SCH2CO2-) were anomalously retarded and identical, the mobility of the iodoacetamide deriv. was intermediate between the retarded acidic derivs. above and XA below. These studies have suggested a role of the extended conformation of the A chain of insulin in causing a mobility shift of the acidic derivs. in this series. Similar results were obsd. in an analogous series of derivs. prepd. from BSA. Non-denaturing gel filtration analyses of native vs. sulfitolyzed samples of **serum albumin**, ovalbumin and RNase have indicated that the sulfitolyzed proteins elute earlier than their native counterparts and appear to be significantly larger than their true mol. wts. CD anal. has indicated significant loss in helicity of sulfitolyzed BSA. This suggests that the retarded mobility of sulfitolyzed proteins seen on SDS-PAGE is likely to be due to an expansion in the hydrodynamic vols. of these proteins, a phenomenon triggered by cleavage of disulfide bonds and further accentuated by the introduction of strongly neg. charged sulfonates.

L21 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:507784 HCAPLUS
DOCUMENT NUMBER: 115:107784
TITLE: Production of **heterologous proteins** in plants or plant cells by recombinant DNA techniques
PATENT ASSIGNEE(S): Mogen International N. V., Neth.

SOURCE: Neth. Appl., 37 pp.
CODEN: NAXXAN
DOCUMENT TYPE: Patent
LANGUAGE: Dutch
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 8901932	A	19910218	NL 1989-1932	19890726
WO 9102066	A1	19910221	WO 1990-NL108	19900726
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
EP 436003	A1	19910710	EP 1990-911488	19900726
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
JP 04502861	T2	19920528	JP 1990-510940	19900726
US 5716802	A	19980210	US 1991-659287	19910521
US 5650307	A	19970722	US 1995-469856	19950606
US 5763748	A	19980609	US 1997-829057	19970331

PRIORITY APPLN. INFO.:
NL 1989-1932 19890726
WO 1990-NL108 19900726
US 1991-659287 19910521

AB Prodn. and secretion of a **heterologous protein** in a plant or plant cell is made possible by substituting a signal sequence functional in the plant host for the natural signal sequence immediately preceding the protein gene in the expression cassette introduced into the plant host. Thus, cloned cDNA for human prepro-**serum albumin** was manipulated to insert a sequence coding for a signal peptide from Samsun NN tobacco protein PROB12 immediately prior to the sequence coding for mature human **serum albumin**. Plasmid pMOG236, an Agrobacterium tumefaciens binary vector contg. this construct, was used to transform potato slices which were regenerated to mature transgenic plants. Leaves, stems, and tubers of these plants contained human **serum albumin**. The albumin was secreted by leaf cells and was found at elevated concn. in the extracellular fluid.

L21 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:201173 HCAPLUS
DOCUMENT NUMBER: 114:201173
TITLE: Albumin fragment gene and its cloning and expression in Escherichia coli
INVENTOR(S): Maki, Noboru; Yagi, Shintaro; Suzuki, Masanori
PATENT ASSIGNEE(S): Toa Nenryo Kogyo K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02227079	A2	19900910	JP 1989-217540	19890825

PRIORITY APPLN. INFO.: JP 1988-250926 19881006

AB Human **serum albumin** fragments contg. the multiple sites for binding pharmaceuticals but not the C-terminal **cysteine** residues and the N-terminal long chain fatty acids binding sites are manufd. with recombinant Escherichia coli as carrier. Alternatively, the **serum albumin** fragments are manufd. as fusion products, esp. with the signal peptide of alk. phosphatase (phoA). Plasmid encoding a fusion protein of human **serum albumin** fragment (Met123-Pro303) and phoA signal peptide was constructed and transformed into E. coli. The E. coli transformants produced the fusion protein having a mol. wt. of 21000 (by SDSPAGE).

=> d stat que

L1	53	SEA FILE=REGISTRY SERUM ALBUMIN?/CN
L3	330	SEA FILE=REGISTRY CHIMERIC
L4	63	SEA FILE=REGISTRY ANGIOSTA?/CN
L5	42	SEA FILE=REGISTRY ENDOSTATIN?
L7	342	SEA FILE=REGISTRY CYSTINE?/CN
L8	29	SEA FILE=REGISTRY TYROSINE KINASE?/CN AND RECEPTOR?
L9	209	SEA FILE=REGISTRY CYTOKINE?/CN AND RECEPTOR?
L10	2073	SEA FILE=REGISTRY G PROTEIN?/CN
L11	1	SEA FILE=REGISTRY MIRR/BI
L12	241	SEA FILE=REGISTRY ORPHAN?/CN
L13	61673	SEA FILE=HCAPLUS L1 OR SERUM(W)ALBUMIN OR SA
L14	12190	SEA FILE=HCAPLUS CHIMERIC(5A)(PROTEIN? OR ?PEPTIDE?) OR L3
L15	590	SEA FILE=HCAPLUS L4 OR ANGIOSTA?
L16	346	SEA FILE=HCAPLUS L5 OR ENDOSTAT?
L17	85458	SEA FILE=HCAPLUS L7 OR CYSTEINE
L18	34865	SEA FILE=HCAPLUS L8 OR L9 OR L10 OR L11 OR L12 OR (TYROSINE(W)KINASE OR CYTOKINE OR ORPHAN OR G(W)PROTEIN?)(5A)RECEPTOR? OR MIRR
L19	2449	SEA FILE=HCAPLUS HETEROLOGOUS(W)(PROTEIN? OR ?PEPTIDE?)
L20	1198	SEA FILE=HCAPLUS L13 AND (L15 OR L16 OR L17 OR L19)
L21	9	SEA FILE=HCAPLUS L20 AND L14
L22	9	SEA FILE=HCAPLUS L18 AND L20
L23	6	SEA FILE=HCAPLUS L22 NOT L21

=> d ibib abs hitrn l23 1-6

L23 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:	2001:676999 HCAPLUS
DOCUMENT NUMBER:	135:252790
TITLE:	Single nucleotide polymorphisms in human genes
INVENTOR(S):	Cargill, Michele; Ireland, James S.; Lander, Eric S.
PATENT ASSIGNEE(S):	Whitehead Institute for Biomedical Research, USA
SOURCE:	PCT Int. Appl., 145 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001066800	A2	20010913	WO 2001-US7268	20010307

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-187510 P 20000307
US 2000-206129 P 20000522

AB The invention provides nucleic acid segments of the human genome, particularly nucleic acid segments from genes including polymorphic sites. The polymorphisms were identified by resequencing of target sequences from individuals of diverse ethnic and geog. backgrounds by hybridization to probes immobilized to microfabricated arrays. Some of the single nucleotide polymorphisms (SNPs) specify a different amino acid sequence, some are silent or are in noncoding regions, and some specify a stop signal in protein translation. Allele-specific primers and probes hybridizing to regions flanking or contg. these sites are also provided. The nucleic acids, primers and probes are used in applications such as phenotype correlations, forensics, paternity testing, medicine and genetic anal.

IT **147171-37-7**, Adrenergic .beta. receptor kinase 2
149371-16-4, Adrenergic .beta. receptor kinase 1
191941-10-3, prepronociceptin
RL: BOC (Biological occurrence); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(single nucleotide polymorphisms in human genes)

L23 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:	2001:490351 HCAPLUS
DOCUMENT NUMBER:	135:209360
TITLE:	Requirement for p38 and p44/p42 mitogen-activated protein kinases in RAGE-mediated nuclear factor-.kappa.B transcriptional activation and cytokine secretion
AUTHOR(S):	Yeh, Chen-Hsiung; Sturgis, Lydia; Haidacher, Joe; Zhang, Xue-Nong; Sherwood, Sidney J.; Bjercke, Robert J.; Juhasz, Ondrej; Crow, Michael T.; Tilton, Ronald G.; Denner, Larry
CORPORATE SOURCE:	Department of Cell Biology and Apoptosis Program, Texas Biotechnology Corporation, Houston, TX, 77030, USA
SOURCE:	Diabetes (2001), 50(6), 1495-1504 CODEN: DIAEAZ; ISSN: 0012-1797
PUBLISHER:	American Diabetes Association
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB Advanced glycation end product (AGE) activation of the signal-transducing receptor for AGE (RAGE) has been linked to a proinflammatory phenotypic

change within cells. However, the precise intracellular signaling pathways involved have not been elucidated. We demonstrate here that human **serum albumin** modified with N.epsilon.-(carboxymethyl)lysine (CML), a major AGE adduct that progressively accumulates with aging, diabetes, and renal failure, induced nuclear factor (NF)-.kappa.B-driven reporter gene expression in human monocytic THP-1 cells. The NF-.kappa.B response was blocked with a synthetic peptide corresponding to the putative ligand-binding domain of RAGE, with anti-RAGE antiserum, and by coexpression of truncated receptors lacking the intracellular domain. Signal transduction from RAGE to NF-.kappa.B involved the generation of reactive oxygen species, since reporter gene expression was blocked with the antioxidant N-acetyl-L-**cysteine**. CML-modified albumin produced rapid transient activation of tyrosine phosphorylation, extracellular signal-regulated kinase 1 and 2, and p38 mitogen-activated protein kinase (MAPK), but not c-Jun NH2-terminal kinase. RAGE-mediated NF-.kappa.B activation was suppressed by the selective p38 MAPK inhibitor SB203580 and by coexpression of a kinase-dead p38 dominant-neg. mutant. Activation of NF-.kappa.B by CML-modified albumin increased secretion of proinflammatory cytokines (tumor necrosis factor-.alpha., interleukin-1.beta., and monocyte chemoattractant protein-1) severalfold, and inhibition of p38 MAPK blocked these increases. These results indicate that p38 MAPK activation mediates RAGE-induced NF-.kappa.B-dependent secretion of proinflammatory cytokines and suggest that accelerated inflammation may be a consequence of cellular activation induced by this receptor.

REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:136160 HCAPLUS
DOCUMENT NUMBER: 134:322241
TITLE: Chemisorption of the Dipeptide Arg-Cys on a Gold Surface and the Selectivity of G-Protein Adsorption
AUTHOR(S): Uvdal, K.; Vikinge, T. P.
CORPORATE SOURCE: Laboratory of Applied Physics Department of Physics and Measurement Technology, Linkoeping University, Linkoeping, S-581 83, Swed.
SOURCE: Langmuir (2001), 17(6), 2008-2012
CODEN: LANGD5; ISSN: 0743-7463
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Arginine-L-**cysteine** dipeptide adsorbates are used in this study as a model system for **G-protein**-coupled **receptors** (GPCRs). An arginine-contg. model mol. is chosen because the GPCR .alpha.2A has been shown to include an arginine-rich region in the G-protein-binding part of the third intracellular loop, and the role of arginines by means of recognition is believed to exceed their pos. charge. The dipeptide Arg-Cys is adsorbed to gold surfaces and the peptide monolayers are characterized. These peptide monolayers are then used for G-protein adsorption expts. to study the mol. interaction and binding. The mol. adsorption, orientation, and chem. binding of the peptide to the surface are studied by XPS and IR reflection-absorption spectroscopy. A chem. shift in the S(2p) core level spectrum of the

peptide adsorbate on gold shows that there is a strong mol. surface interaction consistent with a chem. binding of the peptide to the surface through the sulfur atom. With the **cysteine** part linked to the surface, the arginine part of the mol. is available for further adsorption processes. Monolayers of Arg-Cys, L-**cysteine**, and cysteamine are used for G-protein adsorption expts. Adsorption of human **serum albumin** and human Igs on the same monolayers are studied for comparison. The anal. tool is surface plasmon resonance. Two different buffers are used for the adsorption studies, and the influence of buffer compn. on protein adsorption is discussed.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:795994 HCAPLUS
DOCUMENT NUMBER: 132:31744
TITLE: Gene probes used for genetic profiling in healthcare screening and planning
INVENTOR(S): Roberts, Gareth Wyn
PATENT ASSIGNEE(S): Genostic Pharma Ltd., UK
SOURCE: PCT Int. Appl., 745 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9964627	A2	19991216	WO 1999-GB1780	19990604

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

GB 1998-12099	A	19980606
GB 1998-13291	A	19980620
GB 1998-13611	A	19980624
GB 1998-13835	A	19980627
GB 1998-14110	A	19980701
GB 1998-14580	A	19980707
GB 1998-15438	A	19980716
GB 1998-15574	A	19980718
GB 1998-15576	A	19980718
GB 1998-16085	A	19980724
GB 1998-16086	A	19980724
GB 1998-16921	A	19980805
GB 1998-17097	A	19980807
GB 1998-17200	A	19980808
GB 1998-17632	A	19980814

GB 1998-17943 A 19980819

AB There is considerable evidence that significant factor underlying the individual variability in response to disease, therapy and prognosis lies in a person's genetic make-up. There have been numerous examples relating that polymorphisms within a given gene can alter the functionality of the protein encoded by that gene thus leading to a variable physiol. response. In order to bring about the integration of genomics into medical practice and enable design and building of a technol. platform which will enable the everyday practice of mol. medicine a way must be invented for the DNA sequence data to be aligned with the identification of genes central to the induction, development, progression and outcome of disease or physiol. states of interest. According to the invention, the no. of genes and their configurations (mutations and polymorphisms) needed to be identified in order to provide crit. clin. information concerning individual prognosis is considerably less than the 100,000 thought to comprise the human genome. The identification of the identity of the core group of genes enables the invention of a design for genetic profiling technologies which comprises of the identification of the core group of genes and their sequence variants required to provide a broad base of clin. prognostic information - "genostics". The "Genostic.RTM." profiling of patients and persons will radically enhance the ability of clinicians, healthcare professionals and other parties to plan and manage healthcare provision and the targeting of appropriate healthcare resources to those deemed most in need. The use of this invention could also lead to a host of new applications for such profiling technologies, such as identification of persons with particular work or environment related risk, selection of applicants for employment, training or specific opportunities or for the enhancing of the planning and organization of health services, education services and social services.

IT **9012-96-8**, Cystathionase **54004-64-7**, Rhodopsin kinase
127407-08-3, **Receptor tyrosine kinase**
138359-29-2, c-Kit protein tyrosine kinase
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(core group of disease-related genes; gene probes used for genetic profiling in healthcare screening and planning)

L23 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:795993 HCAPLUS
DOCUMENT NUMBER: 132:31743
TITLE: Gene probes used for genetic profiling in healthcare screening and planning
INVENTOR(S): Roberts, Gareth Wyn
PATENT ASSIGNEE(S): Genostic Pharma Limited, UK
SOURCE: PCT Int. Appl., 149 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9964626	A2	19991216	WO 1999-GB1779	19990604

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9941586	A1	19991230	AU 1999-41586	19990604
AU 9941587	A1	19991230	AU 1999-41587	19990604
GB 2339200	A1	20000119	GB 1999-12914	19990604
GB 2339200	B2	20010912		
EP 1084273	A1	20010321	EP 1999-925207	19990604

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

PRIORITY APPLN. INFO.:

GB 1998-12098	A	19980606
GB 1998-28289	A	19981223
GB 1998-16086	A	19980724
GB 1998-16921	A	19980805
GB 1998-17097	A	19980807
GB 1998-17200	A	19980808
GB 1998-17632	A	19980814
GB 1998-17943	A	19980819
WO 1999-GB1779	W	19990604

AB There is considerable evidence that significant factor underlying the individual variability in response to disease, therapy and prognosis lies in a person's genetic make-up. There have been numerous examples relating that polymorphisms within a given gene can alter the functionality of the protein encoded by that gene thus leading to a variable physiol. response. In order to bring about the integration of genomics into medical practice and enable design and building of a technol. platform which will enable the everyday practice of mol. medicine a way must be invented for the DNA sequence data to be aligned with the identification of genes central to the induction, development, progression and outcome of disease or physiol. states of interest. According to the invention, the no. of genes and their configurations (mutations and polymorphisms) needed to be identified in order to provide crit. clin. information concerning individual prognosis is considerably less than the 100,000 thought to comprise the human genome. The identification of the identity of the core group of genes enables the invention of a design for genetic profiling technologies.

IT **9012-96-8**, Cystathionase **54004-64-7**, Rhodopsin kinase **127407-08-3, Receptor tyrosine kinase** **138359-29-2**, c-Kit protein tyrosine kinase
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(core group of disease-related genes; gene probes used for genetic profiling in healthcare screening and planning)

L23 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:424365 HCAPLUS
DOCUMENT NUMBER: 129:91388
TITLE: Recursive sequence recombination and screening as a

tool for the in vitro evolution of gene products
INVENTOR(S): Patten, Phillip A.; Stemmer, Willem P. C.
PATENT ASSIGNEE(S): Maxygen, Inc., USA; Patten, Phillip A.; Stemmer, Willem P. C.
SOURCE: PCT Int. Appl., 123 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9827230	A1	19980625	WO 1997-US24239	19971217
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6335160	B1	20020101	US 1996-769062	19961218
AU 9857292	A1	19980715	AU 1998-57292	19971217
AU 732146	B2	20010412		
EP 946755	A1	19991006	EP 1997-953571	19971217
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001506855	T2	20010529	JP 1998-528054	19971217
AU 9923816	A1	19990812	AU 1999-23816	19990416

PRIORITY APPLN. INFO.:

US 1996-769062	A1	19961218
AU 1995-29714	A3	19950217
WO 1995-US2126	A2	19950217
US 1995-564955	A2	19951130
US 1996-537874	A2	19960304
US 1996-621859	A2	19960325
US 1996-650400	A2	19960520
WO 1996-US19256	A2	19961202
WO 1997-US24239	W	19971217

AB A method for development of proteins with new combinations of properties by recursive recombination of coding sequences of different origins and screening of gene products for desired properties is described. Recombination can be in vitro, or in vivo, e.g. using the cre/loxP system. Further variation can be introduced using mutagenesis-prone methods such as DNA repair. One method is denaturing and renaturing a population of fragments of 20-100 base pairs and selecting for those hybrids with base pair mismatches. These mismatched sequences are then ligated together to generate new sequences that will undergo DNA repair-mediated mutation. The method is flexible enough to allow coarse, or large scale, changes in sequences or it can be used at a very fine level: generating changes in a small subsequence. Many screening procedures may be used, but they must be carefully designed to detect changes of interest. Novel variants of calf intestinal alk. phosphatase with novel substrate specificity, human .alpha. interferon with higher specific activity, and luciferases with

increased stability are generated.

IT **86090-08-6, Angiostatin**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(development of novel variants of; recursive sequence recombination and screening as tool for in vitro evolution of gene products)

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=> d stat que
L1           53 SEA FILE=REGISTRY SERUM ALBUMIN?/CN
L3          330 SEA FILE=REGISTRY CHIMERIC
L4           63 SEA FILE=REGISTRY ANGIOSTA?/CN
L5           42 SEA FILE=REGISTRY ENDOSTATIN?
L7          342 SEA FILE=REGISTRY CYSTINE?/CN
L8           29 SEA FILE=REGISTRY TYROSINE KINASE?/CN AND RECEPTOR?
L9          209 SEA FILE=REGISTRY CYTOKINE?/CN AND RECEPTOR?
L10        2073 SEA FILE=REGISTRY G PROTEIN?/CN
L11           1 SEA FILE=REGISTRY MIRR/BI
L12         241 SEA FILE=REGISTRY ORPHAN?/CN
L13       61673 SEA FILE=HCAPLUS L1 OR SERUM(W)ALBUMIN OR SA
L14       12190 SEA FILE=HCAPLUS CHIMERIC(5A)(PROTEIN? OR  ?PEPTIDE?) OR L3
L15         590 SEA FILE=HCAPLUS L4 OR ANGIOSTA?
L16         346 SEA FILE=HCAPLUS L5 OR ENDOSTAT?
L17       85458 SEA FILE=HCAPLUS L7 OR CYSTEINE
L18       34865 SEA FILE=HCAPLUS L8 OR L9 OR L10 OR L11 OR L12 OR (TYROSINE(W)K
                INASE OR CYTOKINE OR ORPHAN OR G(W)PROTEIN?)(5A)RECEPTOR? OR
                MIRR
L19        2449 SEA FILE=HCAPLUS HETEROLOGOUS(W)(PROTEIN? OR ?PEPTIDE?)
L20        1198 SEA FILE=HCAPLUS L13 AND (L15 OR L16 OR L17 OR L19)
L21           9 SEA FILE=HCAPLUS L20 AND L14
L22           9 SEA FILE=HCAPLUS L18 AND L20
L23           6 SEA FILE=HCAPLUS L22 NOT L21
L27        1474 SEA FILE=HCAPLUS L17 AND LOOP?
L28         107 SEA FILE=HCAPLUS L13 AND (L15 OR L16 OR L27 OR L19)
L29          17 SEA FILE=HCAPLUS L28 AND (ANGIOGENESIS OR APOPTOSIS OR
                CELL(W)PROLIFER? OR ?TUMUOR? OR ?TUMOR? OR ?CANCER? OR
                ?CARCIN? OR ?NEOPLASM? OR ?SARCOM? OR ?LYMPHOM? OR ?MELANO? OR
                ?LEUKEM? OR ?METAST?)
L30          12 SEA FILE=HCAPLUS L29 NOT (L21 OR L23)

=> d ibib abs hitrn l30 1-12

L30  ANSWER 1 OF 12  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:        2002:81559  HCAPLUS
TITLE:                   Construction of eukaryotic expression vector of
                         endostatin gene and identification of its
                         activity
AUTHOR(S):               Fu, Luoan; Zhang, Xiang; Wu, Jingwen; Gao, Dakuan;
                         Yang, Lisun; Qu, Yan
CORPORATE SOURCE:        Institute of Neurosurgery of Chinese PLA, Xijing
                         Hospital, Fourth Military Medical University, Xi'an,
                         710033, Peop. Rep. China
SOURCE:                  Disi Junyi Daxue Xuebao (2001), 22(23), 2162-2165
                         CODEN: DJDXEG; ISSN: 1000-2790
```

PUBLISHER: Disi Junyi Daxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB The expression vector of **endostatin** gene was constructed and its transfection into C6 cell and its antiangiogenesis activity were studied. The rat **serum albumin** secretive signal was linked to the **endostatin** gene C terminal by PCR, this fused gene was then inserted into polylinker sites of eukaryotic expression vector pcDNA3 to construct pcDNA-SE. The vector was transfected into C6 glioma cells by lipofectamine and the pos. clone was screened by G418. The activity of **endostatin** protein expressed by the C6 cells was examd. by immunohistochem. and the **cell proliferation** assay. The eukaryotic expression vector pcDNA-SE was successfully constructed and transfected into C6 cells. The cells expressed the **endostatin** protein which could inhibit the endotheliocyte proliferation. **Endostatin** was a potent **angiogenesis** inhibitor. The expt. led a foundation for following expts. on antiangiogenesis gene therapy of **tumors**.

L30 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:74923 HCAPLUS
TITLE: Improved survival in **tumor**-bearing SCID mice treated with interferon-??-inducible protein 10 (IP-10/CXCL10)
AUTHOR(S): Arenberg, Douglas A.; White, Eric S.; Burdick, Marie D.; Strom, Scott R. B.; Strieter, Robert M.
CORPORATE SOURCE: Department of Internal Medicine, Division of Pulmonary and Critical Care Medicine, University of Michigan Medical School, Ann Arbor, MI, 48109-0642, USA
SOURCE: Cancer Immunology Immunotherapy (2001), 50(10), 533-538
CODEN: CIIMDN; ISSN: 0340-7004
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **Tumor** growth requires **angiogenesis**, which in turn requires an imbalance in the presence of angiogenic and **angiostatic** factors. We have shown that the CXC chemokine family, consisting of members that are either angiogenic or **angiostatic**, is a major determinant of **tumor**-derived **angiogenesis** in non-small-cell lung **cancer** (NSCLC). **Intratumor** injection of interferon-inducible protein 10 (IP-10, or CXCL10), an **angiostatic** CXC chemokine, led to reduced **tumor** growth in a SCID mouse model of NSCLC. In this study, we hypothesized that treatment with CXCL10 would, by restoring the **angiostatic** balance, improve long-term survival in NSCLC-bearing SCID mice. To test this hypothesis, A549 NSCLC cells were injected in the subcutis of the flank, followed by **intratumor** injections with CXCL10 continuously (group I), or for ten weeks (group II), or a control group (human **serum albumin**). Median survival was 169, 130, and 86 days resp. ($P < 0.0001$). We extended these studies to examine the mechanism of prolonged survival in CXCL10-treated mice. CXCL10 treatment inhibited lung **metastases**, but was dependent upon continued treatment, and was assocd. with an increased rate of **apoptosis**

in the primary **tumor**, with no direct effect on the proliferation of the NSCLC cells. Furthermore, the inhibition of lung **metastases** was due to the **angiostatic** effect of CXCL10 on the primary **tumor**, since the rate of **apoptosis** within lung **metastases** was unaffected. These data suggest that anti-angiogenic therapy of human lung **cancer** should be continued indefinitely to realize persistent benefit, and confirms the anti-**metastatic** capacity of localized **angiostatic** therapy.

L30 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:12702 HCAPLUS
TITLE: Inhibition of spontaneous **metastases** formation by amifostine
AUTHOR(S): Grdina, David J.; Kataoka, Yasushi; Murley, Jeffrey S.; Hunter, Nancy; Weichselbaum, Ralph R.; Milas, Luka
CORPORATE SOURCE: Department of Radiation and Cellular Oncology, University of Chicago, Chicago, IL, 60637, USA
SOURCE: International Journal of Cancer (2002), 97(2), 135-141
CODEN: IJCNAW; ISSN: 0020-7136
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Amifostine was investigated for its ability to inhibit spontaneous **metastases** formation using the well-characterized murine **sarcoma**, **Sa**-NH. Amifostine was administered i.p. at a dose of 50 mg/kg every other day for 6 days to C3Hf/Kam mice until **tumors** reached an av. size of 8-8.5 mm in diam. Amifostine was again administered immediately after surgical removal of the **tumor**-bearing limbs by amputation, and then once more 2 days later. Twenty-one days later, animals were evaluated for the presence of spontaneously developed pulmonary **metastases**. **Nontumor**-bearing control animals were sham treated using the same dosing and surgery schedules. Treatment with amifostine appeared to slightly delay **tumor** growth, i.e., 13 vs. 12 days for **tumors** to reach an av. diam. of 8 mm. Amifostine reduced both the incidence of pulmonary **metastases** formed in exptl. animals from 77% to 57% ($p < 0.05$), and their av. no. per animal from 12.8 .+-. 5.4 (SEM) to 2.9 .+-. 1.1 (SEM). The effect of amifostine exposure on serum levels of the **angiogenesis** inhibitor **angiostatin** was also detd. using Western blot anal. Consistent with the **antimetastatic** effect, exposure of animals to 50 mg/kg of amifostine resulted in a 4-fold enhanced serum level of **angiostatin** above control levels. This phenomenon occurred in **tumor**-bearing and **nontumor**-bearing animals. The effects of amifostine on matrix metalloproteinase (MMP) enzymic activity was also detd. using gelatin zymog. Conditioned growth medium collected from **Sa**-NH cells grown to confluency was exposed to various concns. of SH, i.e., 2-[(aminopropyl)amino]ethane-thiol (WR-1065), the active thiol form of amifostine, for either 30 min or 18 h. WR-1065, as a function of increasing dose and time, inhibited the enzymic activities of MMP-2 and MMP-9. At a concn. and time of exposure likely to be achieved in vivo, i.e., 40 .mu.M and 30 min, MMP-2 and MMP-9 activities were reduced to between 30% and 40% of control values. Consistent with these affects, WR-1065 was also found to be effective in inhibiting the ability of **Sa**-NH cells to migrate through Matrigel membranes.

After an 18-h exposure under in vitro conditions, WR-1065 at concns. of 4, 40 and 400 .mu.M, and 4 mM, inhibited **Sa**-NH migration to 11%, 44%, 81% and 97% of control values, resp. The abilities of amifostine and its active thiol WR-1065 to stimulate **angiostatin** prodn. in mice, and to inhibit the MMP enzymic activities and invasion ability of **Sa**-NH cells under in vitro conditions, are consistent with the obsd. **antimetastatic** effects exhibited against **Sa**-NH **tumors** growing in vivo.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:556856 HCAPLUS
DOCUMENT NUMBER: 135:286235
TITLE: Genomic and proteomic analysis of the myeloid differentiation program
AUTHOR(S): Lian, Zheng; Wang, Le; Yamaga, Shigeru; Bonds, Wesley; Beazer-Barclay, Y.; Kluger, Yuval; Gerstein, Mark; Newburger, Peter E.; Berliner, Nancy; Weissman, Sherman M.
CORPORATE SOURCE: Department of Genetics, Boyer Center for Molecular Medicine, the Section of Hematology, Department of Internal Medicine, Yale University School of Medicine, New Haven, CT, 06536-0812, USA
SOURCE: Blood (2001), 98(3), 513-524
CODEN: BLOOAW; ISSN: 0006-4971
PUBLISHER: American Society of Hematology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Although the mature neutrophil is one of the better characterized mammalian cell types, the mechanisms of myeloid differentiation are incompletely understood at the mol. level. A mouse promyelocytic cell line (MPRO), derived from murine bone marrow cells and arrested developmentally by a dominant-neg. retinoic acid receptor, morphol. differentiates to mature neutrophils in the presence of 10.mu.M retinoic acid. An extensive catalog was prepd. of the gene expression changes that occur during morphol. maturation. To do this, 3'-end differential display, oligonucleotide chip array hybridization, and 2-dimensional protein electrophoresis were used. A large no. of genes whose mRNA levels are modulated during differentiation of MPRO cells were identified. The results suggest the involvement of several transcription regulatory factors not previously implicated in this process, but they also emphasize the importance of events other than the prodn. of new transcription factors. Furthermore, gene expression patterns were compared at the level of mRNA and protein, and the correlation between 2 parameters was studied.
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:473659 HCAPLUS
DOCUMENT NUMBER: 135:205729
TITLE: Microarray analysis of the in vivo effects of hypophysectomy and growth hormone treatment on gene expression in the rat

AUTHOR(S): Flores-Morales, Amilcar; Stahlberg, Nina; Tollet-Egnell, Petra; Lundeberg, Joakim; Malek, Renae L.; Quackenbush, John; Lee, Norman H.; Norstedt, Gunnar
CORPORATE SOURCE: Department of Molecular Medicine, Karolinska Institute, Stockholm, 17176, Swed.
SOURCE: Endocrinology (2001), 142(7), 3163-3176
CODEN: ENDOAO; ISSN: 0013-7227
PUBLISHER: Endocrine Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors used cDNA microarrays contg. 3000 different rat genes to study the consequences of severe hormonal deficiency (hypophysectomy) on the gene expression patterns in heart, liver, and kidney. Hybridization signals were seen from a majority of the arrayed cDNAs; nonetheless, tissue-specific expression patterns could be delineated. Hypophysectomy affected the expression of genes involved in a variety of cellular functions. Between 16-29% of the detected transcripts from each tissue changed expression level as a reaction to this condition. Chronic treatment of hypophysectomized animals with human GH also caused significant changes in gene expression patterns. The study confirms previous knowledge concerning certain gene expression changes in the above-mentioned situations and provides new information regarding hypophysectomy and chronic human GH effects in the rat. Furthermore, the authors have identified several new genes that respond to GH treatment. The results represent a first step toward a more global understanding of gene expression changes in states of hormonal deficiency.
REFERENCE COUNT: 92 THERE ARE 92 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:315685 HCAPLUS
DOCUMENT NUMBER: 134:348950
TITLE: Expression vector for human **serum albumin** gene expression and its use in gene of hypoalbuminaemia
INVENTOR(S): Wood, Christopher Barry
PATENT ASSIGNEE(S): UK
SOURCE: Brit. UK Pat. Appl., 25 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2350362	A1	20001129	GB 1999-30891	19990805

PRIORITY APPLN. INFO.: GB 1998-17084 A 19980806
AB This invention provides a vector construction comprising human **serum albumin** gene which is used as gene therapy to treat the disorder of liver, like hypoalbuminemia. The plasmid vector pGT123 comprises myosin light chain 1/3 enhancer, CMV promoter and human **serum albumin** gene. The invention also provides the

pharmaceutical compn. of the gene therapy and examples of administration. Plasmid vector comprising human **serum albumin** gene was introduce into patient suffering the liver disorder which resulted in dramatic increase of the concn. of **serum albumin** in blood.

IT **86090-08-6, Angiostatin 187888-07-9, Endostatin**
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gene for, in gene therapy of liver disease; vector construction for human **serum albumin** expression and use in gene therapy to treat hypoalbuminemia)

L30 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:900985 HCAPLUS
DOCUMENT NUMBER: 134:126444
TITLE: Expression of human **angiostatin** kringle(1-3) in C6 cell suppresses endothelial **cell proliferation** in vitro
AUTHOR(S): Gao, Dakuan; Zhang, Xiang; Wu, Jingwen; Qu, Yan; Jing, Junjie; Liang, Jingwen; Li, Shuhe
CORPORATE SOURCE: Xijing Hospital, The Fourth Military Medical University, Xi'an, 710032, Peop. Rep. China
SOURCE: Jiefangjun Yixue Zazhi (2000), 25(2), 83-86
CODEN: CFCHBN; ISSN: 0577-7402
PUBLISHER: Jenminjun Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB To research anti-**angiogenesis** activity of, human AK(1-3)[**angiostatin** kringle(1-3)], rat **serum albumin** signal dipeptide was transfected into C6 cell utilizing lipofectamine. Electron microscope, flow cytometry, immunohistochem. and Western blot were used to detect the ultramicrostructure, cell cycle and expression of AK(1-3) of C6 cell transfected and untransfected. The anti-**angiogenesis** activity of AK(1-3) expressed by C6 cell was identified with human umbilical vein endothelial **cell proliferation** assay. The results indicate that C6 cell successfully transfected with AK(1-3) gene can stably express active AK(1-3) which potently inhibits endothelial **cell proliferation**. The study provides a promise for the anti-**angiogenesis** gene therapy in vivo.

L30 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:325817 HCAPLUS
DOCUMENT NUMBER: 130:351218
TITLE: Methods and compositions for enhancing immune response and for the production of in vitro MABs
INVENTOR(S): Tamarkin, Lawrence; Paciotti, Giulio F.
PATENT ASSIGNEE(S): Cytimmune Sciences, Inc., USA
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9924066	A2	19990520	WO 1998-US23957	19981110
WO 9924066	A3	19991209		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9914548	A1	19990531	AU 1999-14548	19981110
EP 1039933	A2	20001004	EP 1998-958518	19981110
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002503639	T2	20020205	JP 2000-520153	19981110

PRIORITY APPLN. INFO.:			
US 1997-65155	P	19971110	
US 1998-75811	P	19980224	
US 1998-107455	P	19981106	
WO 1998-US23957	W	19981110	

AB The methods and compns. of the present invention are directed to enhancing an immune response and increasing vaccine efficacy through the simultaneous or sequential targeting of specific immune system components. More particularly, specific immune components, such as macrophages, dendritic cells, B cells and T cells, are individually activated by component-specific immunostimulating agents. One such component-specific immunostimulating agent is an antigen-specific, species-specific monoclonal antibody. The invention is also directed to a method for the in vitro prodn. of the antigen-specific, species-specific monoclonal antibodies which relies upon the in vitro conversion of blood-borne immune cells, such as macrophages and lymphocytes. Vaccine efficacy is enhanced by the administration of compns. contg. component-specific immunostimulating agents and other elements, such as antigens or carrier particles, such as colloidal methods, such as gold.

IT **86090-08-6, Angiostatin 187888-07-9, Endostatin**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methods and compns. for enhancing immune response and for the prodn. of in vitro monoclonal antibodies)

L30 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:79450 HCAPLUS
DOCUMENT NUMBER: 118:79450
TITLE: Kluyveromyces lactis as a host for the manufacture of **heterologous proteins**
INVENTOR(S): Fleer, Reinhard; Fournier, Alain; Yeh, Patrice
PATENT ASSIGNEE(S): Rhone-Poulenc Rorer SA, Fr.
SOURCE: Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 521767	A1	19930107	EP 1992-401848	19920630
R: PT				
FR 2678636	A1	19930108	FR 1991-8217	19910702
FR 2678636	B1	19940819		
WO 9301274	A1	19930121	WO 1992-FR610	19920630
W: AU, CA, FI, HU, JP, NO, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
CA 2110992	AA	19930121	CA 1992-2110992	19920630
AU 9222783	A1	19930211	AU 1992-22783	19920630
EP 592574	A1	19940420	EP 1992-915114	19920630
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 06509226	T2	19941020	JP 1992-502002	19920630
NO 9304572	A	19931213	NO 1993-4572	19931213
US 5633146	A	19970527	US 1995-454778	19950531

PRIORITY APPLN. INFO.: FR 1991-8217 19910702
US 1992-175417 19920630
WO 1992-FR610 19920630

AB An isolate of Kluyveromyces lactis CBS293.91, and mutants derived from it, are used to manuf. **heterologous proteins.** An expression vector for the manuf. of human **serum albumin** using the LAC4 promoter was constructed and introduced into a no. of isolates of K. lactis. K. lactis CBS293.91 showed lactose-inducible expression of the gene with yields of the protein considerably higher than when other strains of K. lactis were used. The generation of a mutant of K. lactis CBS293.91 analogous to the URA3 mutant of Saccharomyces cerevisiae is described. This mutant may be used for heterologous gene cloning/expression.

L30 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:139125 HCAPLUS
DOCUMENT NUMBER: 98:139125
TITLE: Biosynthesis of rabbit **serum albumin** in a heterologous fractionated subcellular system
AUTHOR(S): Hradec, Jan; Stiborova, Marie; Dusek, Zdenek; Franek, Frantisek
CORPORATE SOURCE: Dep. Biochem., Oncol. Inst., Prague, CS-180 00/8, Czech.
SOURCE: Eur. J. Biochem. (1983), 131(2), 277-81
CODEN: EJBCAI; ISSN: 0014-2956
DOCUMENT TYPE: Journal
LANGUAGE: English

AB As demonstrated by a simple procedure based on indirect immunopptn., proteins retained on heparin-Sepharose 4B from postmitochondrial supernatants of rat liver and Zajdela hepatoma catalyze the translation of rabbit **serum albumin** mRNA in the presence of ribosomal subunits from rat liver, Zajdela hepatoma, or rabbit reticulocytes. The albumin synthesis shows an optimum at 1.5 mM MgCl2 and 25 mM KCl and requires ATP and GTP. It is significantly stimulated by tRNA and proceeds for >2 h, suggesting a high rate of reinitiation. At the optimum

ribosome:mRNA ratio of 13:1, the immunoprecipitable radioactivity was >15-20-fold the blank values. Fluorog. of polyacrylamide slabs after electrophoresis of immunoppts. revealed the presence of only complete full-size **serum albumin** without any smaller peptides resulting from premature terminations of polypeptide chains, demonstrating faithful translation. In stained gels only, both heavy and light chains of IgG were found, indicating that the assay procedure is highly specific and reliable. The fractionated **heterologous protein** -synthesizing system described in this paper may be generally useful for studies of the synthesis of specific proteins and factors affecting their rates since, unlike comparable translation assays, a precise calcn. of the balance of newly synthesized proteins is possible.

L30 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1981:618698 HCAPLUS
DOCUMENT NUMBER: 95:218698
TITLE: Immunochemistry of conjugates prepared from serum albumins and acridine nitrogen mustards (ICR mutagens)
AUTHOR(S): Creech, Hugh J.; O'Connell, Anna P.
CORPORATE SOURCE: Inst. Cancer Res., Fox Chase Cancer Cent., Philadelphia, PA, 19111, USA
SOURCE: Cancer Res. (1981), 41(10), 3844-51
CODEN: CNREA8; ISSN: 0008-5472
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Antibodies elicited in rabbits by immunization with conjugates prepd. from serum albumins and nitrogen mustard derivs. of quinacrine (atebrin) had strong binding sites complementary to the quinacrine hapten. The characteristic absorption spectrum of quinacrine made possible accurate detns. of the antigen-antibody compn. of the serol. ppts. Conclusive evidence that such antibodies, in addn. to reacting with the quinacrine component of **heterologous protein** test conjugates, bind quinacrine itself, as well as closely related acridine haptens, was provided by quant. inhibition studies. Atebrin and the hydroxy precursors of several heterocyclic nitrogen mustards caused more than a 50% inhibition of the antigen-antibody reactions. The antibodies elicited by the quinacrine-protein conjugates in ascites **tumor**-bearing mice substantially neutralized the **antitumor** effectiveness of the low dosages (0.5-2.0 .mu.mol/kg) of the acridine nitrogen mustards that were required for a demonstration of chemotherapeutic activity. In contrast, nitrogen mustard, which has no quinacrine moiety, was not affected. Immunization with unaltered **serum albumin** had no influence on the activity of the acridine nitrogen mustards. Quant. in vitro inhibition studies allowed satisfactory predictions of in vivo immunol. reactivity.

L30 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1956:53455 HCAPLUS
DOCUMENT NUMBER: 50:53455
ORIGINAL REFERENCE NO.: 50:10246h-i,10247a-b
TITLE: Immunological properties of **carcinogen** -protein conjugates containing polycyclic aromatic hydrocarbons and substituted stilbenes
AUTHOR(S): Creech, Hugh J.; Havas, H. Francis; Andre, Janet

CORPORATE SOURCE: Lankenau Hosp., Philadelphia
SOURCE: Cancer Research (1955), 15, 726-33
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Antibodies toward 9,10-dimethyl-1,2-benzanthryl-3-carbamido-horse **serum albumin** conjugate reacted well with **heterologous proteins** contg. haptens which were either similar in size and configuration (3,4-benzopyrene) or smaller (1,2-benzanthracene, 2-acetylaminofluorene), but poorly with those contg. a larger structure (1,2,5,6-dibenzanthracene). The structural alteration produced by photooxidation of 9,10-dimethyl-1,2-benzanthracene was reflected by a change in haptenic activity. Conjugates in which 2'-methyl-4-dimethylaminostilbene was joined to protein by an azo or carbamido linkage showed haptenic activity and cross reactivity, but the 2 linkages were not equiv. The terminal dimethylaminophenyl portion of the substituted stilbene mol. was of serologic importance. After exhaustive sepn. of the antihapten-protein serum by native protein and by hapten-**heterologous protein**, there remained much antibody which was specifically pptd. by the completely homologous test antigen.